

CLAIMS:

1. A device for treating human skin by means of radiation, which device comprises a housing, a radiation source accommodated in the housing, a radiation exit opening, a radiation path between the radiation source and the radiation exit opening, and a radiation filter positioned in the radiation path and comprising water, characterized in that at least during an initial phase of operation of the device the radiation filter comprises water in solid state.
2. A device as claimed in claim 1, characterized in that during operation the water in solid state is in thermal contact with the skin to be treated.
3. A device as claimed in claim 1, characterized in that the device comprises a releasable and removable holder for the water in solid state.
4. A device as claimed in claim 3, characterized in that the holder comprises a transparent material having a predetermined optical transmission spectrum such that said material substantially transmits radiation having a wavelength above a predetermined threshold value and substantially reflects or absorbs radiation having a wavelength below said threshold value.
5. A device as claimed in claim 1, characterized in that the device comprises a cooling device for cooling the water in solid state.
6. A device as claimed in claim 1, characterized in that during operation the water in solid state is in direct contact with the skin to be treated.
7. A device as claimed in claim 1, characterized in that the water in solid state comprises an additive.

8. A device as claimed in claim 1, 2, 3, 4, 5, 6 or 7, characterized in that the device is a device for removing hairs from human skin, wherein the radiation source is a flash lamp.

5 9. A holder for water in solid state for use in a device as claimed in claim 3, characterized in that the holder comprises a chamber for containing water in solid state, said chamber comprising an optically transparent radiation path which, during operation, extends through the water in solid state, and said holder comprising positioning means which are arranged outside said radiation path and which define a predetermined position of said
10 radiation path in the device.

10. A holder as claimed in claim 9, characterized in that the holder comprises an additional chamber which is in thermal contact with the chamber for containing the water in solid state and which comprises a compound having a eutectic composition with a eutectic
15 temperature lower than the melting temperature of the water in solid state.